#### S/096/60/000/07/011/022 E194/E455

Characteristics of a Gas Turbine Determined from Test Results with a Small Heat Drop

are known. The operating conditions may be defined in terms of the total heat drop proportional to the referred adiabatic velocity or in terms of the gas flow through the turbine, proportional to the referred flow. These two variants are considered in turn after the necessary relationships between the full size and model running conditions have been defined. The first of the two cases considered is based on the equation of continuity given in the form of Eq (1). Then Eq (8), (10) and (12) are derived. They suffice to construct the characteristic curve of the turbine under normal operating conditions from the test data with a given referred flow. The second method of adjusting the results is then considered. Eq (13) is derived and from it the equations necessary for the conversion. Both methods of adjusting the results are valid only for sub-critical and critical conditions, since with a super-critical heat drop in the blading the outlet angle of the flow increases and the velocity coefficient of

Card 2/3

\$/096/60/000/07/011/022 E194/E455

AUTHOR:

TITLE:

Maksutova, M.K., Candidate of Technical Sciences Characteristics of a Gas Turbine Determined from

Test Results with a Small Heat Drop

PERIODICAL: Teploenergetika, 1960, Nr 7, pp 51-55 (USSR)

ABSTRACT:

In the laboratory, turbines are often tested with a much smaller value of heat drop than is used in practice. The turbine characteristics are, of course, different at different heat drops because of the influence of compressibility of the gas. Therefore, tests made at small heat drop must be suitably corrected

before the results are applied to operation with comparatively large heat drop. The present article suggests an approximate method of constructing turbine characteristics with a high heat drop (i.e. under working conditions) from the results of tests of a small heat drop (i.e. model conditions). In this method it is assumed that all the turbine parameters are sufficiently

accurately known under the test conditions, that the velocity triangles can be constructed and that the velocity coefficients of the nozzles and runner blades

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68935 \$/147/59/000/04/012/020 E022/E435

The Influence of the Velocity Coefficient  $\psi$  on the Characteristics of the Turbine

remains constant) will result in adiabatic reduced velocity ( $\lambda_{a,\beta}$ ) and the efficiency of the stage  $\eta$  being changed as well. Eq (19) and (20) show the appropriate relations for  $\lambda_{a,\beta}$  and  $\eta$  respectively. Thus, solving Eq (18), (19) and (20), one can find the corrections (due to variable velocity coefficient  $\psi$ ) for the characteristics of the turbine. There are 1 figure and 1 Soviet reference.

ASSOCIATION: Kafedra aviats onnykh turbomashin Kazanskiy aviatsionnyy institut (Chair of Aeronautical Turbomachines, Kazan Aviation Institute)

SUBMITTED: July 18, 1959

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68935 \$/147/59/000/04/012/020 E022/E435

The Influence of the Velocity Coefficient  $\psi$  on the Characteristics of the Turbine

be considered as constant and independent of coefficient  $\psi$ . As shown in Ref 1, for 1.25  $\langle k \rangle$  k, Eq (5) may be approximated by Eq (9). Its graph is shown in Fig 1 and represents the limit of the rate of flow for various values of  $\psi$  . Along the graph (straight the relative density  $[\epsilon(\lambda_{2w})]$ remains line om) constant and equal to the relative density at the critical section. Any other straight line through the origin is given by Eq (10), and by Eq (8) and (9) it may be deduced that it represents the line of constant relative density satisfying Eq (11). The relation between the two straight lines is then analysed and this leads eventually to Eq (12) and (13) or (14). The last equation may also be expressed as in Eq (15) which is further transformed in Eq (17) by expanding  $\varepsilon(\lambda)$ series as shown. Employing further substitutions, this equation is again transformed to read as in Eq (18). Changes in  $\lambda_{2w}$  (on account of variation of  $\psi$  while

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68935 s/147/59/000/04/012/020 E022/E435

The Influence of the Velocity Coefficient  $\psi$  on the Characteristics of the Turbine

approximations. Hence it seems advisable to establish another relation between  $\lambda_{2w}$  and  $\psi$  for the case when Eq (2) is satisfied. Assuming now that the flow through the working wheel becomes critical or supercritical, ie at the throats of the cascade the reduced velocity is  $\lambda_{2kp}$ , which corresponds to the maximum rate of flow through the wheel, then Eq (3) holds true. By Eq (4), this relation changes to Eq (5) from which for  $\lambda_{2w} = \lambda_{2kp}$ , Eq (6) is obtained. When  $\psi = \psi_{max} = 1$ , the maximum value of the reduced velocity in the throats of the cascade is also equal unity. Writing  $\lambda_{2kp}^2 = 1 - \Delta \lambda^2$  and substituting this in Eq (6) eventually lead to Eq (7). Since the ratio inside the square bracket is only slightly larger than unity, it can be expanded in series as shown in the text, so that Eq (7) may be transformed into Eq (8). From this equation it follows that for the critical and supercritical velocities, the relative density  $(\epsilon(\lambda))$  of the gas at the throat of a nozzle or of a blade passage may

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S/147/59/000/04/012/020 E022/E435

The Influence of the Velocity Coefficient  $\psi$  on the Characteristics of the Turbine

working. As far as  $\varphi$  is concerned that is perhaps admissible but this definitely is not true where  $\psi$  is concerned. This paper presents an approximate method of evaluating the effect of variations in  $\psi$  on the characteristics of the turbine which were computed on the assumption that  $\dot{\psi}$  = const. Continuity requirements give Eq (1), where F denotes the crosssectional area,  $q(\lambda)$  denotes reduced rate of flow, on denotes the coefficient of pressure ratio in the working wheel and  $\mu$  is the ratio of the stagnation temperature of the relative motion to the stagnation temperature in the absolute motion. For a selected rate of flow of the gas through the turbine of given dimensions (which for  $\phi = const$  is proportional to and for a chosen ratio  $\lambda_u/\lambda_1$ , Eq. (2) is applicable. Thus it is seen that, if the rate of flow is constant, the coefficient of the velocity  $\lambda_{2w}$ varies depending on the value of  $\psi$ . It can be determined from Eq (2) only by the method of successive

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S/147/59/000/04/012/020 E022/E435

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AUTHOR: Maksutova, M.K.

TITLE: The Influence of the Velocity Coefficient  $\psi$  on the Characteristics of the Turbine 23

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1959, Nr 4, pp 102-107

ABSTRACT: Indices:

1 - Parameters at the exit from the guiding nozzle and at the entry into working wheel (rotor)

2 - Parameters at the exit from the working wheel and (Ead) - Parameters corresponding to the adiabatic flow in the stage

 Parameters referred to the conditions of work when \( \psi \) is assumed constant

KP (gcr) - Parameters in the throats of the cascade when the flow is supersonic

w - Parameters relating to the relative motion.

When computing the characteristics of turbines, it is often assumed that the velocity coefficients  $\phi$  for the nozzle and  $\psi$  for the rotor blades are constant

Card 1/5 irrespective of the condition in which the turbine is

69206

S/096/59/000/01/011/023 E194/E484

Practical Experience of the Adjustment of Turbine Blading.

discussed. The test results are presented graphically in Fig 2 to 5. There are 5 figures and 2 tables.

ASSOCIATION: Kazanskiy aviatsionnyy institut (Kazan Aviation Institute)

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69206

s/096/59/000/01/011/023 E194/E484

Practical Experience of the Adjustment of Turbine Blading

course of the tests. The tests were made on an ordinary installation for testing straight flat assemblies of blades. The assembly consisted of six blades, details are given of test conditions and of the formulae used in the calculations. The test results showed that alteration of the angle of installation does not alter the magnitude of the loss in the nucleus of the flow but increases only the peak loss. The increase in peak losses is such as to have practically no influence on the blade efficiency. The maximum change in blade efficiency with increase in angle of installation by ten degrees does not exceed 1% which is within the limits of experimental error. tests, increase in the angle of installation reduces the relative pressure at individual points on the profile but maintains the general nature of the pressure distribution over the profiles. Cutting back of the discharge edges also had little influence on efficiency. Cutting back of the discharge edges affected different blade profiles differently and the results are briefly

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S/096/59/000/01/011/023 E194/E484

69206

AUTHOR: Maksutor

ABSTRACT:

Maksutova, M.K., Candidate of Technical Sciences

TITLE: Practical Experience of the Adjustment of Turbine

Blading 26

PERIODICAL: Teploenergetika, 1959, Nr 1, pp 56-59 (USSR)

11

In adjusting turbines, it is sometimes necessary to alter the flow of gas by reducing the flow area through the guide and runner blades. Such alterations of area can also be used to redistribute the heat drop between stages. The flow area is altered by changing the angle of installation of the blades; the flow area may also be increased by cutting back the discharge edges of the blades. Little has been published on the behaviour of blading at different angles of installation and still less on the effect of cutting back the discharge edges. The present work was carried out on two types of runner blade and four types of guide blades, as shown in Fig 1.

The sketches also show the initial angles of

installation. Tables 1 and 2 give the changes in the angles of installation and the amounts by which the

Card 1/3 discharge edges of the blades were cut back during the

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700039-6

S/124/60/000/004/014/027 A005/A001

Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 4, p. 59, # 4609

AUTHOR:

Maksutova, M.K.

TITLE:

A Joint Operation of a Turbine With a Compressor in a Turbojet Engine

PERIODICAL:

Tr. Kazansk. aviats. in-ta, 1958, Vol. 38, pp. 257-274

The author proposes a method for plotting the characteristics of the joint operation of the turbine and the compressor in a turbojet engine, when the characteristics of the compressor and the turbine and the pressure loss coefficients in the combustion chamber and the jet nozzle are known. Two modes of governing the engine are considered, by varying either the temperature T3\* of the retarded flow before the turbine or the outlet area on the jet nozzle. The necessary correlations between the similarity criteria of the compressor and the turbine are derived by the author, based on the conventional equations of energy and continuity and on the equality of the numbers of revolutions of the turbine and the compressor.

V.Kh. Abiants

Translator's note: This is the full translation of the original Russian abstract.

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87445

\$/123/60/000/024/013/014 A005/A001

The Cooperation of Turbine and Compressor in the Turbojet Engine

three basic equations, the correlations between the criteria of similarity of the turbine, compressor, and jet nozzle are derived. The basic characteristics of the turbine and compressor are replotted into the same coordinates chosen according to the similarity criteria for the two control methods mentioned. From the obtained cooperation characteristic of the turbine and compressor, the parameters of air and gas in the engine's stream section are determined. The methods for calculating the flight velocity effect on the engine characteristic are presented, as well as for plotting the turbine characteristics at restrained parameters of the engine.

G.I.N.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

87445 \$/123/60/000/024/013/014 A005/A001

26.1120

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 24, pp. 339-340, # 134666

AUTHOR:

Maksutova, M.K.

TITLE:

The Cooperation of Turbine and Compressor in the Turbojet Engine

PERIODICAL:

Tr. Kazansk. aviats. in-ta, 1958, Vol. 38, pp. 157-274

TEXT: The control problem of the gas turbojet engine can not be solved without plotting the characteristics of the cooperation of the turbine and the compressor. The basic data for plotting the characteristics are series of characteristics of the compressor, the turbine, and the loss factor of the combustion chamber and the jet nozzle. If the control is performed by varying the gas temperature before the turbine, the area of the jet nozzle is assumed to be given; if the control is performed by varying the jet nozzle area, the gas temperature before the turbine is assumed to be given. The basic equations between the characteristics of the turbine and compressor are the correlations between the powers, gas discharges, and the numbers of revolutions of the turbine and compressor. On the basis of the

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96-1-8/31

An Investigation of the Efficiency of Short Turbine Blades.

efficiency to blade length are given in Fig. 3. Relative leakages for different values of gap are graphed in Fig. 5. If the absolute size of the gap is constant, greater blade length gives increased efficiency, as shown in Fig. 5. Comparisons between blading with and without shrouding showed that shrouded blading usually gives higher efficiency. The shrouding prevents leakage of gas from one channel to another, but in the upper sections of the channel the shrouded blading has somewhat higher energy losses than a design with zero clearance. Leakage losses through the gap in shrouded blading is greater than in unshrouded, because leakage through the radial gap above the shrouding does not interfere with the flow of gas from channel to channel above the blade. Therefore, as will be seen from the graphs in Fig. 7, shrouding is sometimes useless, particularly when the blading is very short and end losses are relatively important. There are 1 table and 7 figures.

ASSOCIATION: Kazan Aviation Institute (Kazanskiy aviatsionyy

institut)

AVAILABLE: Library of Congress.

Card 2/2

Maksutova, M.K., Candidate of Technical Sciences and AUTHORS:

Zanadvorova, V.N., Engineer.

TITIE: An Investigation of the Efficiency of Short Turbine Blades

(Issledovaniye effektivnosti korotkikh turbinnykh lopatok)

PERIODICAL: Teploenergetika, 1958, Vol.5, No.1, pp. 31 - 33 (USSR).

ABSTRACT: The object of this work was to study the influence of the absolute and relative dimensions of blading on the efficiency with various sizes of radial gap and also to determine the effectiveness of shrouding on short blades. An ordinary static test rig was used. The main dimensions of the blading, and of the radial gap, are given in the table. To ensure identical conditions of flow over the blading, the boundary layer was cut off by two lamina above and below the inlet zone. By displacing the lamina along the blades their effective height could be altered. The number of blades in the packet ranged from 5 to 8. Determinations were made of the velocity and pressure fields at the inlet to and outlet from the blading. The static pressure was measured, also the total head and direction of flow at each point. The expression given for the blading efficiency assumes that the energy of expansion of the gas in the gap is not delivered to the blades. Non-uniformity of flow

Cardl/2 in pitch and height is allowed for. Graphs relating blading

## MAKSUTOVA, I.I.

Late results of treating periodontitis in children. Natch. trudy Kaz. gos. med. inst. 14:473-474 164. (MICA 18:9)

1. Kafedra terapevticheskoy stomatologii (zav. - dotsent G.D. Ovrutskiy) Kazanskogo meditsinskogo instituta.

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700039-6 MAKSUTOVA, I.I., assistent; YASHKOVA, T.N., vrach Evaluation of the treatment of periodontitis using the oxygen obturation method. Vop. obshchei stom. 17:45-46 (MIRA 18:11) 164. 0

#### MAKSUTOVA, E.L.

Evaluation and utilization of data from experimenta, payero opical studies on patients with schizophrenia following influence. Trudy Gos. nauch.-issl. inst. psikh. 43:149-158 '65. (MIRA 18:9)

1. Klinika eksperimental ney terapii shizetrenii i drugikh psikhozov (zav. - klinikov - prof. I.G.Ravkin) Gosudarstvennogo nauchno-issledovatel skogo instituta psikhiatrii, Neskva.

### MAKSUTOVA, E.L.

Climical aspects and treatment of achieophrenia originating in connection with introduces. Volumeins, jutona i loch, this, no.1: 94-96 (4.

Course of schizophrenta originating following influence according to caramestic data. Ford. 197-38 (Mira 1805)

1. Otder ekoperimental ney term II patkhozov (zav. otderem - pref. 1.6. Ravkin) Cosujavstvanacje osneboe-izsladovatel skogo instituta zdravockhraneniya RSPOR.

(Moskva) MAKSUTOVA, E.L. Characteristics of the psychopathological pisture of schizo-phrenia developed in connection with influenceal infection. phrenia developed in connection with influenceal infection. Trudy Gos. nauch.-issl. inst. psikh. 40:182-190 \*63 (MIRA 17:87) MAESUTOV, V.G. Using a high-power telescope as a slitless spectrograph. 12v.

AN Kazakh. SSR. Ser. fiz.-mat nauk no.1:59-60 '63. (MIRA 17:4) VALUYEV, V.V.; MAKSUTOV, R.N.; MATYUTO, N.A.; YAKERSON, S.A.; CHICHEVA, L.I., red.; OKOLELOVA, Z.P., tekhn.red. [Mechanization of the preparation and placement in soil of peat fertilizers] Mekhanizatsiia zagotovki i vneseniia v pochvu torfianykh udobrenii. Moskva, Sel'khozizdat, (MIRA 17:1) 1963. 101 p.

KAPEL'NITSKIY, V.G.; SHVED, F.I.; KARTSEV, M.A.; TULIN, N.A.; POZDEYEV, N.P.;
SERGEYEV, A.B.; MERENISHOHEVA, I.I.; KALININA, Z.M.; POZDEYEV, M.V.
Prinimali uchastiye: KUZOVATOV, V.N.; MAKSUTOV, R.F.; MYSINA, G.Ye.;
SHELGAYEVA, A.V.; ZHIVICHKIN, L.A.; GAYDUK, Yu.A.; GALIYAN, V.S.;
SOSKOV, D.A.; KHMELEV, I.I.; PARABINA, G.I.

Making steel and alloys in vacuum furnaces. Stal 23 no.4:325-328
(MIRA 16:4)

(Vacuum metallurgy) (Electric furnaces)

MAKSUTOV, R.A.; DOBROSKOK, B.Ye.; ZHDANOV, M.M.; KHALAMAN, B.S.; PUSTOVOYT, S.P. Field testing of equipment designed for separate injection of water into two layers. Nefteprom. delo no.10:10-13 '65. (MIRA 19:1) 1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut i Ob"yedineniye neftyanoy promyshlennosti Tatarskoy ASSR Ministerstva neftyanoy promyshlennosti SSSR.

ZHDANOV, M.M.; KOSTRYUKOV, G.V.; ASFANDIYAROV, Kh.A.; MAKSUTOV, R.A.;
KONDAKOV, A.N.; TURUSOV, V.M.; SILIN, V.A.; PILIUTSKIY, O.V.;
SHELDYBAYEV, B.P.; PETROV, A.A.; SMIRHOV, Yu.S.; KOLESNIKOV,
A.Ye.; DROZDOV, I.P.; IVANTSOV, O.M.; TSYGANOV, B.Ya.;
KORNONGOOV, A.P.; VDOVIN, K.I.; ALEKSEYEV, L.A.; GAYDUKOV, D.T.;
LIPTHERKIY, A.Ya.; DANYUSHEVSKIY, V.S.; VEDISHCHEV, I.A.;
ALEKSEYEV, L.G.; KRASYUK, A.D.; IVANOV, G.A.

Author's communications. Neft. i gaz. prom. no.2:67-68
Ap-Je '64. (MIRA 17:9)

CIA-RDP86-00513R001031700039-6

GAZIMOV, M.G.; MAKSUTOV, R.A. Electrization of petroleum-gas flow. Nefteprom. delo no.8:29-31 63. (MIRA 17:4) 1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

MAKSUTOV, R.A.; ABDULLIN, R.A., starshiy nauchnyy sotrudnik

Vital problem of the petroleum industry. Neftianik 7
no.1:10-11 Ja. '62.

1. Rukovoditel laboratorii Titarskogo nauchno-issledovatel skogo neftyanogo instituta (for Maksutov).

(Faraffins)

ARKHANGEL'SKIY, V.A. (Moskva); AUZBAYEV, D. (Bugul'ma); BASHKIROV, A.I. (Bugul'ma); VAILI'YEV, Yu.N. (Bugul'ma); MAKSUTOV, R.A. (Bugul'ma)

Investigating gas-oil mixture flow in gushers. Inzh.zhur. 2 no.1:55-68 '62. (MIRA 15:3)

1. Institut mekhaniki AN SSSR i Tatarskiy nauchno-issledovatel'skiy institut. (Oil reservoir engineering)

AUZBAYEV, D; BAJHKTROV, A.I; VASIL-YEV, Yu N.; MAKSUTOV, A.A. Methods and results of the experimental study of the gas-oil mixture flow in a flowing well. Neft, khoz, 39 no.12:38-40 D 161. (MIRA 14:12) (0il reservoir engineering)

VASIL'YEV, Yu.N.; MAKSUTOV, R.A.; BASHKIROV A.I. Experimental study of the structure of oil and gas flow in a flowing well. Neft. khoz. 39 no.4:41-44 Ap '61. (MIRA 14:6) (Oil reservoir engineering)

BASHKIROV, A.I.; BRISKMAN, A.A.; VASIL'YEV, Yu.N.; MAKSUTOV, R.A. Propagation of elastic vibrations in oil wells. Trudy VNII no.35:3-10 '61. (MIRA 15:1) (Oil wells-Vibration)

MAKSUTOV, R., Cand of Tech Sci -- (diss) "Investigation of the Work of Piston Pumps with Air Valves," Moscow, 1959, 21 pp (Moscow Institute of Petrochemistry and Gas Industry im I. M. Gubkin) (KL, 2-60, 113)

SOV/124-58-8-8739

Reducing Pressure Fluctuations in Pipelines

2) When air chambers are employed, the reduction in pressure fluctuation which they produce extends through the entire length of the line between the pump and any localized hydraulic resistance encountered (e.g., a heat exchanger, a condenser, etc.) regardless of where along the line the air chamber may be connected. 3) When an air chamber is used, the amplitude of the pressure fluctuations in a pipeline does not increase proportionately with the mean pressure.

M.E. Faktorovich

Card 2/2

SOV/124-58-8-8739

Translation from: Referativnyy zhurnal, Mckhanika, 1958, Nr 8, p 55 (USSR)

AUTHORS: Gladkikh, P.A., Maksutov, R.A.

TITLE: Reducing Pressure Fluctuations in Pipelines (Gasheniye kole-

baniy pul'satsiy davleniya zhidkosti v truboprovodakh)

PERIODICAL: Novosti neft. tekhn. Neftepererabotka, 1957, Nr 6, pp 20-24

ABSTRACT: To reduce pressure fluctuations in pipelines, air chambers are usually installed directly on the pumps or directly alongside them. To prevent explosions and the carry-off of air from the chambers it is recommended that the connection of the latter to petroleum pipelines operating under pressure consist of connecting pipes filled with a medium in which air is not soluble. Full-scale investigations conducted with an electrical strain-gage apparatus developed at the VNIIStroyneft' Institute (All-Union Scientific Research Institute for Construction in the Petroleum and Gas Industry) revealed the following: 1) The amplitude of the pressure fluctuations in pipelines connected to piston pumps depends on the mean pressure. The amplitude of the pressure fluctuations is greatly increased when a local-Card 1/2 ized hydraulic resistance is present at the end of the pipeline.

MAKSUTOV, D.D. High latitude expedition in 1961 on the atomic icebreaker "Lenin."
Probl.Arkt.i Antarkt. no.11:107-109 '62. (MIRA 16:2)
(Lenin (Atomic ship)) (Arctic Ocean-Ice) 

BFIOROSSOVA, T.S.; MAKSUTOV, D.D.; MERMAN, N.V.; SOSNIMA, M.A. Wide-angle telescops with a large diameter and blue light-gothering power. Izv. GAO 23 no.5:162-166 164. (BURA 17:11)

NAVASHIN, Mikhail Sergeyevich; MAKSUTOV, D.D., red.; KULIKOV, G.S., red.; PLAKSHEV, L.Yu., tekhn. red.

[Telescope of an amateur astronomer]Teleskop astronomaliubitelia. Pod red. D.D.Maksutova. Moskva, Fizmatgiz, 1962/ 375 p. (MIRA 15:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Maksutov). (Telescope, Reflecting)

NAVASHIN, Mikhail Sergeyevich; MAKSUTOV, D.D., otv. red.; BRONSHTEYN, V.A., red.

[Instructions for constructing a reflecting telescope] Instructions i izgotovleniiu samodel'nogo teleskopa-reflektora. Moskva, Izd-vo Åkad. nauk SSSR, 1962. 49 p. (MIRA 15:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Maksutov). (Telescope, Reflecting)

S/035/62/000/012/028/064 · A001/A101 Comparison of three types of mirror-lens systems... instruments and difficulties of their manufacturing. There are 9 references. G. Borodina [Abstracter's note: Complete translations] Card 2/2

3,1220

8/035/62/000/012/028/064 A001/A101

AUTHORS:

Belorossova, T. S., Maksutov, D. D., Mermap, N. V., Sosnina, M. A.

TITLE:

Comparison of three types of mirror-lens systems; meniscus,

Richter-Slevogt and Schmidt

PERIODICAL:

Referativnyy zhurnal, Astronomiya i Geodeziya, no. 12, 1962, 75, abstract 12A561 ("Izv. Gl. astron. observ. v Pulkove", 1961, v.22, no. 4, 114 - 122, English summary)

The results of comparing three types of mirror-lens systems: meniscus, Richter-Slevogt and Schmidt, are presented. The comparison was conducted at a diameter of the entrance aperture D=1000 mm for three aperture ratios: 1:2; 1:3 and 1:4. The systems are achromatized and corrected for spherical aberration and coma. All investigated systems have been trigonometrically calculated in an exact way with the purpose of a rigorous study and comparison of aberrations caused by them. Adopted tolerances for aberration do not exceed 20  $\mu$  . The comparison method is described in detail. The tables and graphs show the results of comparison of the systems in respect to effective field of view, length of

Card 1/2

MAKSUTOV, D.D. Ja 158. (MIRA 11:7) Ja 158. 1.Chlen-korrespondent AN SSSR.
(Astronomical instruments)

MAKSUTOV, D.D. New method for investigating the shape of mirrors for large telescopes. Izv.GAO 21 no.1:5-29 '57. (MIRA 13:4) (Telescope, Reflecting) (Mirrors)

MAKSUTOV, D. D. (Corr. Mem., Acad. of Sci. USSR) "Advantage of Mensieus System Over Other Mirror-Lens Combinations," a report presented at the Conference of Commission on Association Instrument Commission of the Astronomical Council, AS USSR, 10-12 Peb 56. Sum. No. 1047, 31 Aug 56

MARSONOV D. D.

USSR/Physics - Optics

(lard 1/1

Author

Maksutov, D. D., Corresp. Mem. of the Acad, of Sci. of the USSR

Mtl.

Meniscal telescopes

Periodical :

Nauka 1 Zhisn' 21/4, 29-30, April 1954

Abstract

The author shows the principles of the meniscal telescope with its concave-convex lens and finds that while it may be used in certain branches of science and technology, it cannot compete with reflector telescopes for measuring celestial angles and the exact position of stars. He recounts the development of the telescope, beginning with Galileo, showing how the achromatic objective 150 years later solved the difficulty of obtaining magnification without breaking up the light into different colors. A modern meniscal telescope is mentioned, which has a more complicated optical system, having a long focus, with a comparatively short tube. Diagram,

Institution :

Submitted

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USCR/Astronomy - Intrared-Gonverter

MAKSUTOV, D. D.

Jul. 53

"New Works of the Crimean Astrophysical Observatory," P. P. Dobrace is and W. 1. Pikel'ner

Priroda, No 7, pp 50-56

Describes the history of the Crimean Observatory at Sireir, from 1900, the late of its origin, to the present. Discusses the works of G. A. Shayn and J. P. Gaze (ratios of numbers of isotopes in the atmosphere of starm, end carbon starm); F. F. Shayn (light from starm); P. P. Dobromravia (spectra); V. B. Nikonau, associate at Pulkovo Observatory, A. A. Kalinyak, and V. I. Krasovskiy (study of Stellar infrared rays by means of electron-optical converters); I. S. Sklovakiy (theroretical radioastronomy); V. A. Ambartsumyan (red giants); P.cof B. A. Vorontsov-Villya in (interstellar gas blown from the surface of hot starm); G. A. Vorontsov-Villya in (spectroheliograph designs); A. E. Gillvarg (light filters); E. B. Instel (chromospheric outbursts); D. D. Eaksutov, Corr-Nem Acad Sci USSB (studies with menicus telescope-raflector system and coronograph).

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MAKSUTOV, D. D.

USSR/Astronomy - Spectrometer

Jun 50

"The First Soviet Nebular Spectrograph," P. P. Dobronraven

"Priroda" No 6, pp 54-57

Two new nebular spectrographs have been designed by B. K. Ioannisiani of the Soviet optical industry, one being installed in the Crimean Astrophys Obs at Simeiz and the other in the Byurokan Obs in Armenia. The optic lens for the camera of the spectrograph in Simeiz was produced under the direction of D. D. Maksutov, Corr Mem, Acad Sci USSR, Laureate of the Stalin Prize.

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MAKSUTOV, D. D.

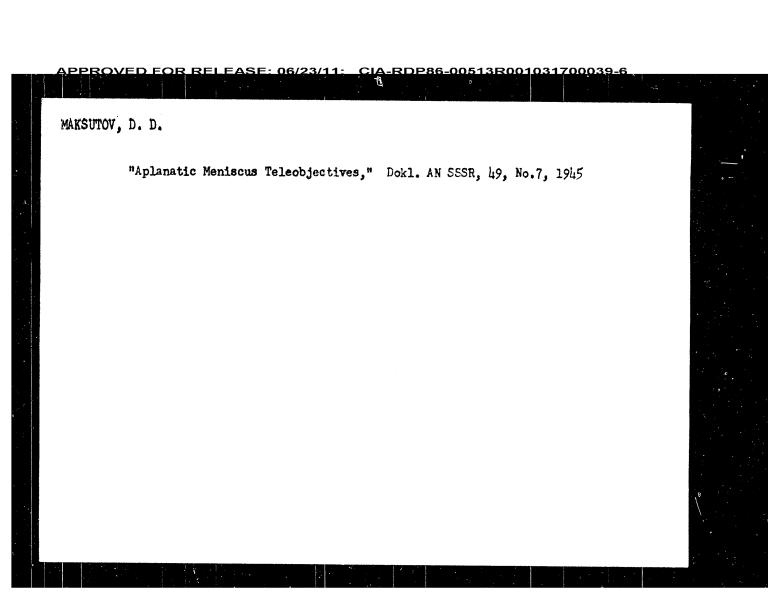
Izgotovlenie i issledovanie astronomicheskoi optiki. Leningrad, Gostekhizdat, 1948. 279 p. diagrs.

Manufacturing and examining astronomical optics.

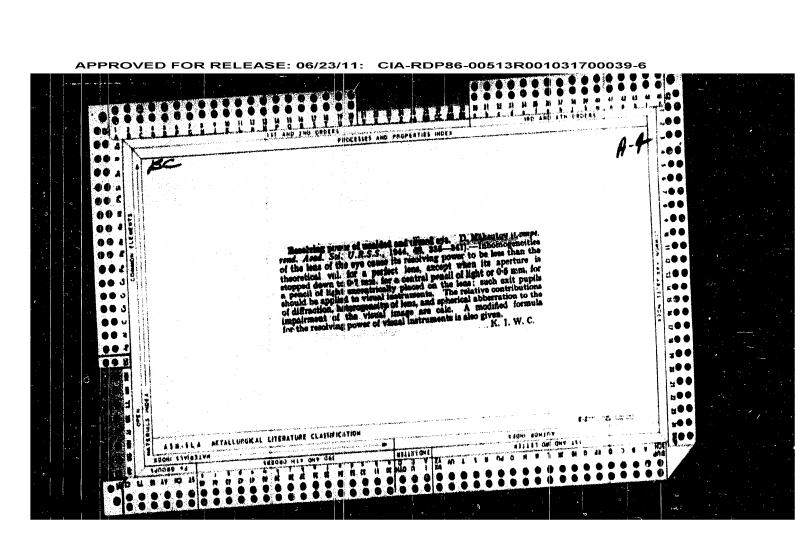
ViU

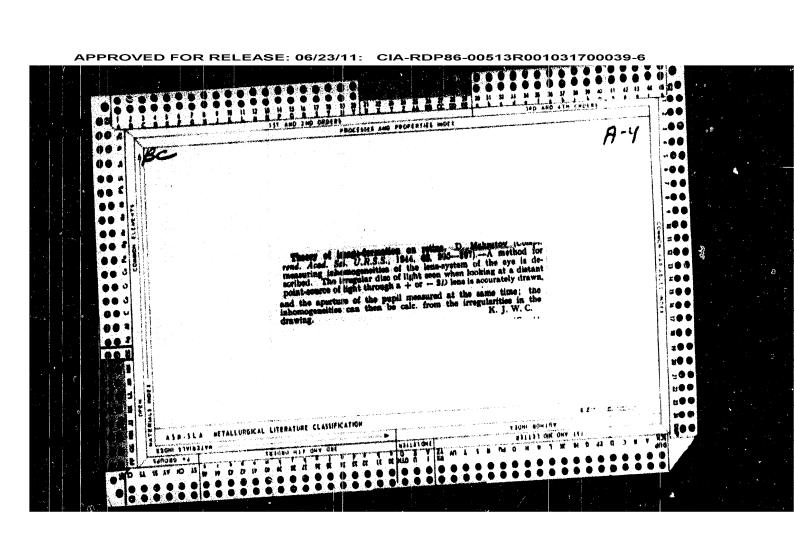
DLC: QB88.M2

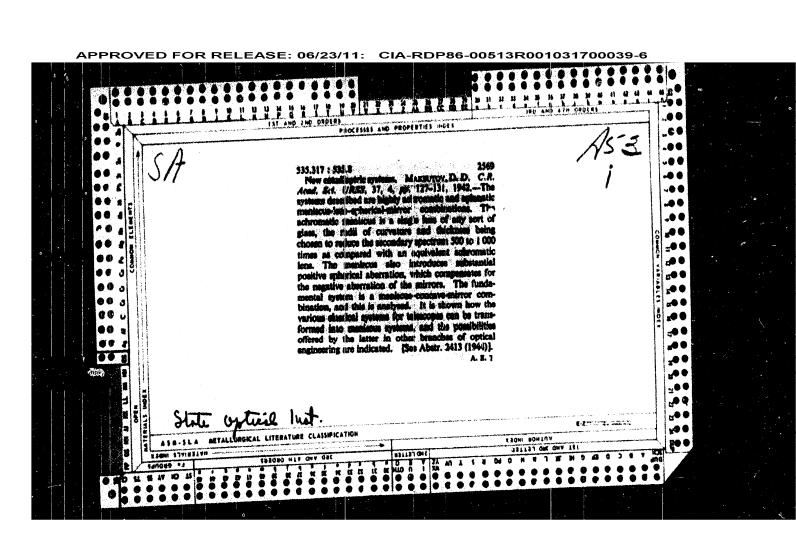
SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

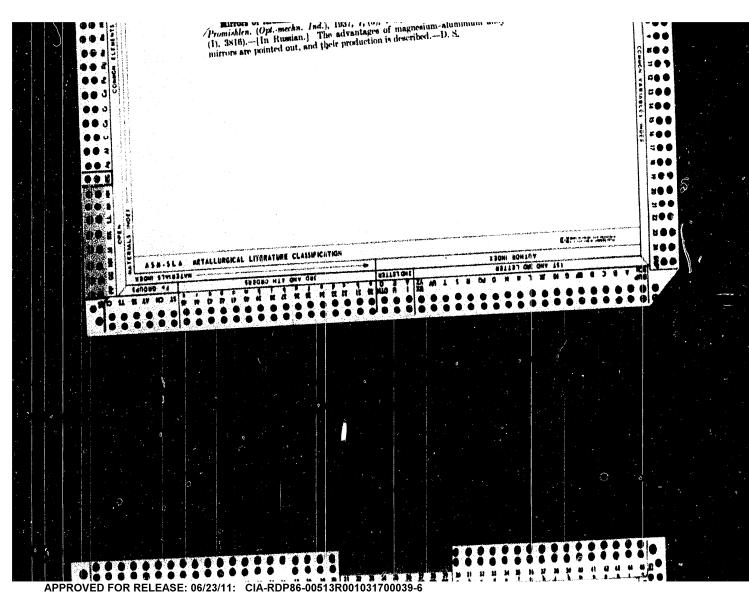


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D '56. (MLRA 10:2) (Wageningen--Shipbuilding)

MAKSUTI, A. " How alfalfa is cultivated in Peshkopi" Per Bujqesine Socialiste. Tirane, Albania. Vol. 13, no. 1, Jan 1959 Monthly list of East European Accessions (EEAI), IC, Vol. 8, No. 6, Jun 59, Unclas

## SAVICH, D.; MAKSURI, A.N.

Increase the role of the departments of labor in utilizing the hidden potentialities of production. Sots. trud 8 no.1:35-42 Ja '63. (MIRA 16:2)

l. Nachal'nik otdela kadrov, trufa i zarabotnov platy
Upravleniya mashinostroitel'nov promyshlennosti Donetskogo
soveta narodnogo khozyaystva (for Savich). 2. Nachal'nik
TSentral'nov nauchno-issledovatel'skoy laboratorii po trudu.
Upravleniya mashinostroitel'nov promyshlennosti Donetskogo
soveta narodnogo khozyaystva (for Maksuri).

(Donetsk Province-Machinery industry-Production standards)

MAKSURI, A.N. Introduction of technical production standards into the enter-prises of an economic region. Sots. trud 7 no.8:67-71 Ag '62. (MIRA 15:10) (Donets Basin-Machinery industry-Production standards)

MAKSURI, A.N. In the Stalino Economic Region. Mashinostroitel' no.8:16-17 Ag '61. (MIRA 14:7) (Stalino Province-Machinery industry-Production standards)

MAKSUTOVA, M.K., kand. tekhn. neuk Effect of the k adiabat on the characteristics of turbines. Teploenergetika 11 no.8:29-33 Ag '64. (MIRA 18:7) 1. Kasanskiy aviatsionnyy institut.

MAKSUNOVA, M.K.

Study of capillary circulation in the skin in a closed cranio-cerebral traums by the method of radioactive tracers. Zdrav. Tadzh. 10 no.3:30-31 '63. (MIRA 17:4)

l. Iz kafedra fakul'tetskoy khirurgii Tadahikakogo meditsinakogo instituta imeni Abuali ibm-Sino (zav. kafedroy - zasluzhennyy deyatel' nauki, dotsent Z.P. Khedzhayev).

Morphological changes in the blood picture in closed cranial trauma. Zdrav.Tadzh. 9 no.5:45-47 '62. (MIRA 15:12)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - dotsent Z.P. Khodzhayev) Tadzhikskogo meditsinskogo instituta imeni Atuali ibni Sino. (BLOOD.—FXAMINATION) (SKULL.—MOUNDS AND INJURIES)

(ERAIN.—MOUNDS AND INJURIES)

MAKSUNOVA, M.K. Case of glomus tumor (Barré-Masson tumor). Zdrav. Tadzh. 8 no.5: 27-28 S-0 '61. (MIRA 15:1) l. Iz neyrokhirurgicheskogo otdeleniya kliniki fakul'tetskoy khirurgii Stalinabadskogo medinatituta im. Abuali ibni Sino (zaveduyushchiy - zasl.deyatel' nauki Z.P.Khodzhayev).

(BLOOD VESSELS.\_TUMORS) (FINGERS.\_TUMORS) KHODZHAYEV, Z.P., dotsent; MAKSUNOVA, M.K. Tumors of the spinal cord. Zdrav. Tadzh. 8 no.1:19-21 '61. (MIRA 14:3) (SPINAL CORD\_TUMORS)

MAKSUNOVA, M.K.

Use of antibiotics in skull injuries. Zdrav.Tadzh. 7 no.1:32-34
Ja-7 '60. (MIRA 13:5)

1. Iz kafedry obshchey khirurgii Stalinabadskogo medinstituta imeni Abuali ibni Sino i neyrokhirurgicheskogo otdeleniya Respublikanskoy klinicheskoy bol'nitsy. (AMTIBIOTICS) (SKULL--WOUNDS AND INJURIES)

KHODZHAYEV, Z.P.; MAKSUNOVA, M.K.

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Zdrav. Tadzh. 6 no.6:38-40 159. (MIRA 13:4)

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MAKSUNOVA, M.K.

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USSR / Human and Animal Physiology. Vessels.

 $\mathbf{T}$ 

Abs Jour

: Ref Zhur - Biol., No 15, 1958, No. 70210

Author

: Maksunova, M. K.

Inst

Title

: Not given

: Resorption of Capillaries of the Skin in Organic Injuries

of the Central Nervous System

Orig Pub

: Zdravookhran. Tadzhikistana, 1957, No 5, 18-24

Abstract

: No abstract given

Card 1/1

MAKSUNOV, Viktor Aleksandrovich; POPOV, A.V., otv. red. [Fishes of northern Tajikistan and their commercial use] Ryby Severnogo Tadzhikistana i ikh khoziaistvennoe ispol'zovanie. Dushanbe, Izd-vo AN TadzhikssR, 1964. 43 p. (MIRA 17 8 MAKSUNOV, V.A. Materials on the morphometric and biological characteristics of the Turkestan barbel Marbus capito concocephalus Kessler) from the upper Syr Darya River. Vop.ikht. 2 no.4:592-596 '62. (MIRA 16:2) 1. Institut zoologii i parazitologii Akademii nauk Tadzhikskoy SSR, Dushanbe. (Syr Darya River-Barbel (Fish))

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(Syr Dar 'ya-Fishes)

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Some data on the morphology and biology of Capoetobrama kuschakewitschi (Kessler) of the Syr Darya River [with summary in English]. Zool. zhur. 36 no.2:238-245 F '57. (MLRA 10:6)

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(Tajikistan--Catfish)

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MAKSUNOV, V.A.

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Tadzh. SSR no. 17:105-111 '56. (MIRA 11:8)

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(Begovat--Carp)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700039-6

## MAKSUNOV, V.A.

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Dokl. AN Tadzh.SSR no.15:63-68 '56. (MLRA 9:10)

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Systematics and biology of the pike in Farkhad Reservoir. Izv.0td.
est.nauk AN Tadsh.SSR no.15:99:111 '56. (MLRA 10:2)

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(Farkhad Reservoir--Pike)

MAKSUNOV, V.A.

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125-137 '56.

(MIRA 9:10)

1.Institut zeolegii i parazitelegii imeni akademika Ye.N.Pavlevskoge
Akademii nauk Tadzhikskey SSR.

(Farkhad Reserveir--Carp)

NPPROVED FOR REL FASE: 06/23/11: \_\_CIA-RDP86-00513R001031700039-6

MAKSUNOV, V.A.

Some data on the systematics and biology of Pelecus cultratus (Linne) in Farkhad Reservoir. Izv. Otd. est. nauk AN Tadzh. SSR no.16:135-142 '56. (MLRA 10:4)

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(Farkhad Reservoir -- Fishes)

DESCRIPTION OF THE PROPERTY OF THE PARKET OF

Joseph Jakes

Jan 1/1 Pub. 86 - 17/39

Anthors : Makaunov, V. A.

Title : Lake iskander-Kull

Pariodical : Priroda 44/3, 100 - 102, Mar 1955

Abstract : A description is given of the small (3.5km²) lake Iskander-Kul', situated in Tadjikistan, with figures of dimensions, shore line, depth, sto. Two Soviet references, (1936 - 1949.)

Illustrations.

Institution: The Tadjikistan Academy of Sciences

Absuited : ....

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Trudy AN Tadzh. SSR. 33:77-91 '55. (MLRA 9:8)

(Tajikistan--Fresh-water biology) MAKSUROY, Y.A. The Aral bream from Farkhad Reservoir. Izv.Otd.est.nauk AN (MLRA 9:10) Tadzh.SSR no.10:173-178 '55. 1. Institut zoologii i parazitologii imeni akademika Ye.N. Pavlovskogo AN Tadzhikekoy SSR. (Farkhad reservoir--Bream)

MAKSUNOV, V.A.

Biology of carp in Lake Balkhash. Vop.ikht. no.5:71-77 '55.

(MLRA 9:5)

1. Institut zoologii Parasitologii imeni akademika Ye.N.

Pavlovskogo, Akademii nauk Tadzhikskoy SSR.

(Balkhash, Lake--Carp)

MAKSUHOV, V.A.

History of fish migrations to Lake Balkhash. Priroda 43 no.9:107-108
S '54. (MLRA 7:9)

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(Balkhash, Lake--Fishes--Migration) (Fishes--Migration--Ralkhash, Lake)

MAKSUNOV, V.A. Carp of some waters of Tajikistan. Trudy AN Tadzh. SSR 21:123-129 (MLRA 9:12) 1. Institut zoologii i parazitologii imeni akademika Ye.N.Pavlovskogo Akademii nauk Tadzhikskoy SSR. (Tajikistan-Carp)

MAKSUNOY, V.A.

Seasonal congregations of perch in Lake Balkhash. Vop.ikht. no.1:104-108

153.

1. Balkhashskove otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta ozernogo i rechnogo rybnogo khozyayatva.

(Balkhash, Lake-Perch) (Perch-Balkhash, Lake)

MAKSUMOV, S.S.; SARSIS'YANTS, S.L.; HEREMET'YEV, N.N.; CHICHERIN, P.I.;

ZAPROMETOVA, L.V.; ZHURAVLEVE, N.A.

Virusological characteristics of the outbreak of poliomyelitis in

Tashkent in 1959. Vop. virus. 7 no.2:239 Mr-Ap '62. (MIRA 15:5)

1. Tashkentskiy nauchno-isaledovatel'skiy institut vaktsin i syvorotok.

(TASHKENT--POLIOMYELITIS)

MAKSUMOV, S.S. Possibility of using the brain of a ram for the preparation of an antirabic vaccine. Report No.1. Trudy Tash. NIIVS 5: 15-19\*62. (MIRA 16:10) 15-19'62. (VACCINES) (RABIES)

MAKSUMOV, 8.S. Immunogenic properties of the commercial strains of the rabies virus. Trudy Tash. NIIVS 5:10-14'62. (MIRA 16:10) (RABIES — PREVENTIVE INOCULATION) (IMMUNITY) MAKSUMOV, S.S.: ZAPROMETOVA, L.V. Isolation of the ECHO group of viruses during the course of an epidemic outbreak of poliomyelitis in Tashkent; preliminary report. Med. zhur. Uzb. no.2:17-19 F 62. (MIRA 15:4) 1. Iz Tashkentskogo nauchno-issledovateliskogo instituta vaktsiny i syvorotok Ministerstva zdravookhraneniya SSSR (direktor A.B.Inogamov). (VIRUSES) (TASHKENT--POLIOMYELITIS)

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